

Serial No. 09/523,350
September 15, 2003
Reply to the Office Action dated June 16, 2003
Page 6 of 12

REMARKS/ARGUMENTS

Claims 1, 2, 5, 6, 8, 10-16, 18, and 20 are pending in this application.

Claims 1, 2, 6, 8, 10-14, 16, 18 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicants' Admitted Prior Art (AAPA) in view of Matsumoto et al. (JP 3-5377) and Yasuda et al. (JP 4-367569). Claims 5 and 15 were rejected under 35 USC § 103(a) as being unpatentable over Applicants' Admitted Prior Art in view of Matsumoto et al. and Yasuda et al., and further in view of Shirahata et al. (U.S. 6,005,468). Applicants respectfully traverse these prior art rejections.

Claim 1 has been amended to recite:

**"A method of firing magnetic cores comprising the steps of:
providing a plurality of flattened-ring compact bodies made of a magnetic material and having flattened through holes;
attaching a powder made of an organic material to an outer surface of the plurality of flattened-ring compact bodies;
attaching the plurality of flattened-ring compact bodies to one another so that axes of the flattened through-holes are vertically arranged;
firing the flattened-ring compact bodies while the powder is interposed between the adjacent flattened-ring compact bodies such that said powder is vaporized during the firing step; and
separating each of said plurality of flattened-ring compact bodies from the adjacently arranged plurality of flattened-ring compact bodies."** (emphasis added)

Claim 11 recites method steps and features recited that are similar to the method steps and features recited in claim 1, including the emphasized features.

The Examiner acknowledged that AAPA fails to teach or suggest a step of attaching the plurality of flattened-ring compact bodies to one another, and that AAPA and Matsumoto et al. fail to teach or suggest the step of attaching a powder made of an organic material to a surface of the flattened-ring tubular compact bodies and vaporizing during the firing step. However, the Examiner alleged that Matsumoto et al. teaches a method of making a piezoelectric ceramic body including the steps of "attaching a plurality of ceramic bodies (4) vertically arranged in a vessel (5) as shown in Fig. 5 and

Serial No. 09/523,350
September 15, 2003
Reply to the Office Action dated June 16, 2003
Page 7 of 12

forming ZrO_2 powder (3) in between the ceramic bodies (see Constitution) for preventing bond-sticking during a sintering process", and that Yasuda et al. teaches "a process of making an inserting sheet for firing ceramic comprising the steps of inserting sheet for interposing upon firing ceramic mouldings comprises a base sheet formed from shaped inorganic powder (2) with an organic powder binder (3) and firing the ceramic mouldings with the interposing sheet and the organic powder is vaporized for preventing bond-sticking during the firing step and enabling recovering of fired mouldings separately." Thus, the Examiner concluded that it would have been obvious to modify the flattened-ring compact bodies of AAPA by attaching a plurality of the ceramic bodies vertically "for the purpose of preventing sticking ceramic bodies during sintering," and that it would have been obvious to modify the flattened-ring compact bodies of AAPA, modified by Matsumoto et al., by attaching an organic powder on the surface thereof "for the purpose of preventing bond-sticking during firing." Applicants respectfully disagree.

In contrast to the present claimed invention and the Examiner's allegations, Matsumoto et al. merely teaches that the ZrO_2 is provided between the ceramic formed bodies 4 to prevent the ceramic formed bodies 4 from sticking together.

Matsumoto et al. fails to teach or suggest anything at all about the ceramic formed bodies being attached together, and certainly fails to teach or suggest the steps of "attaching the plurality of flattened-ring compact bodies to one another so that axes of the flattened through-holes are vertically arranged" and "separating each of said plurality of flattened-ring compact bodies from the adjacently arranged plurality of flattened-ring compact bodies" as recited in the present claimed invention.

In fact, since the ZrO_2 of Matsumoto et al. is provided between the ceramic formed bodies 4 to prevent the ceramic formed bodies 4 from sticking together, Matsumoto et al. clearly teaches away from the present claimed invention including the step of "attaching the plurality of flattened-ring compact bodies to one another so that axes of the flattened through-holes are vertically arranged" (emphasis added) as

Serial No. 09/523,350
September 15, 2003
Reply to the Office Action dated June 16, 2003
Page 8 of 12

recited in the present claimed invention. Accordingly, Matsumoto et al. cannot be relied upon in an obviousness rejection of Applicants' claimed invention since it is error to find obviousness where references diverge and teach away from the invention at hand. W.L. Gore & Assoc. v. Garlock Inc., 721 F.2d 1540, 1550, 220 USPQ 303, 311 (Fed. Cir. 1983).

In addition, Matsumoto et al. teaches a method of calcining a piezoelectric ceramic formed body, NOT a method of firing magnetic cores as recited in the present claimed invention. The piezoelectric ceramic bodies of Matsumoto et al. are solid, flat, rectangular bodies made of a piezoelectric ceramic material, and clearly CANNOT be fairly construed as magnetic cores having flattened through holes. Thus, Matsumoto et al. fails to teach or suggest the step of "providing a plurality of flattened-ring compact bodies made of a magnetic material and having flattened through holes" as recited in the present claimed invention.

Since Matsumoto et al. fails to teach or suggest that the method disclosed therein could or should be used in a method of firing magnetic cores, there would have been absolutely no motivation to combine the teaching of Matsumoto et al. with AAPA, as alleged by the Examiner. Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. In re Geiger, 815 F.2d 686, 2 USPQ 1276, 1278 (Fed. Cir. 1987).

In fact, the piezoelectric ceramic bodies of Matsumoto et al. clearly cannot be made of a magnetic material and include flattened through holes, because to do so would clearly destroy the operability of the piezoelectric ceramic bodies of Matsumoto et al. It is impermissible within the framework of § 103 to pick and choose from any one reference only so much of it as will support a given position to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. In re Wesslau, 353 F.2d 238, 241, 147 USPQ 391 (CCPA 1965).

Serial No. 09/523,350
September 15, 2003
Reply to the Office Action dated June 16, 2003
Page 9 of 12

The Examiner has improperly relied upon hindsight reconstruction of the claimed invention to reach his obviousness determination. To imbue one of ordinary skill in the art with knowledge of the invention, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher. W.L. Gore & Assoc. v. Garlock, Inc., 721 F.2d 1540, 1543, 220 USPQ 303, 312-13 (Fed. Cir. 1983).

Furthermore, as acknowledged by the Examiner, Matsumoto et al. clearly fails to teach or suggest "attaching a powder made of an organic material to an outer surface of the plurality of flattened-ring compact bodies" as recited in the present claimed invention.

In contrast to the present claimed invention and the Examiner's allegations, Yasuda et al. merely teaches that an organic powder is "dispersed" in or on the surface of the base sheet 1. As clearly seen in Fig. 1 of Yasuda et al., the base sheet 1 includes inorganic powder 3 and organic powder 2 "dispersed" on both surface of the base sheet 1 which is interposed between the ceramic mouldings to prevent bond-sticking, NOT that the organic powder 2 is attached to the ceramic mouldings. In fact, Yasuda et al. fails to teach or suggest that the organic powder 2 could or should be attached to the ceramic mouldings, and certainly fails to teach or suggest the step of "attaching a powder made of an organic material to an outer surface of the plurality of flattened-ring compact bodies" as recited in the present claimed invention.

Furthermore, the inorganic powder having a larger particle size than that of the inorganic powder for forming the base sheet and the organic powder of Yasuda et al. are specifically provided to prevent bond-sticking. Thus, Yasuda et al. clearly fails to teach or suggest the steps of "attaching the plurality of flattened-ring compact bodies to one another so that axes of the flattened through-holes are vertically arranged" and "separating each of said plurality of flattened-ring compact bodies from the adjacently arranged plurality of flattened-ring compact bodies" as recited in the present claimed

Serial No. 09/523,350
September 15, 2003
Reply to the Office Action dated June 16, 2003
Page 10 of 12

invention.

In fact, similar to Matsumoto et al., since base sheet 1 of Yasuda et al. including the inorganic powder and the organic powder is provided between the ceramic mouldings to **prevent bond-sticking**, the ceramic mouldings of Yasuda et al. cannot be attached to one another. Thus, Yasuda et al. clearly teaches away from the present claimed invention including the step of **"attaching the plurality of flattened-ring compact bodies to one another"** so that axes of the flattened through-holes are vertically arranged" (emphasis added) as recited in the present claimed invention. Accordingly, Yasuda et al. cannot be relied upon in an obviousness rejection of Applicants' claimed invention since it is error to find obviousness where references diverge and teach away from the invention at hand. W.L. Gore & Assoc. v. Garlock Inc., 721 F.2d 1540, 1550, 220 USPQ 303, 311 (Fed. Cir. 1983).

Similar to Matsumoto et al., Yasuda et al. teaches a method of firing piezoelectric ceramic bodies, **NOT** to a method of firing magnetic cores. Thus, again there would have been absolutely **no** motivation to combine the teachings of Yasuda et al. with AAPA, as alleged by the Examiner. Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. In re Geiger, 815 F.2d 686, 2 USPQ 1276, 1278 (Fed. Cir. 1987).

In fact, the piezoelectric ceramic bodies of Yasuda et al. clearly **cannot** be made of a magnetic material and include flattened through holes, because to do so would clearly destroy the operability of the piezoelectric ceramic bodies of Yasuda et al. It is impermissible within the framework of § 103 to pick and choose from any one reference only so much of it as will support a given position to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. In re Wesslau, 353 F.2d 238, 241, 147 USPQ 391 (CCPA 1965).

The Examiner has improperly relied upon hindsight reconstruction of the claimed

Serial No. 09/523,350
September 15, 2003
Reply to the Office Action dated June 16, 2003
Page 11 of 12

invention to reach his obviousness determination. To imbue one of ordinary skill in the art with knowledge of the invention, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher. W.L. Gore & Assoc. v. Garlock, Inc., 721 F.2d 1540, 1543, 220 USPQ 303, 312-13 (Fed. Cir. 1983).

The Examiner has relied upon Shirahata et al. to allegedly cure various deficiencies in the combined teachings of AAPA and Yasuda et al. However, Shirahata et al. clearly fails to teach or suggest the features of "attaching the plurality of flattened-ring compact bodies to one another so that axes of the flattened through-holes are vertically arranged," "said powder is vaporized during the firing step" and "separating each of said plurality of flattened-ring compact bodies from the adjacently arranged plurality of flattened-ring compact bodies" as recited in the present claimed invention.

Accordingly, Applicants respectfully submit that AAPA, Matsumoto et al., Yasuda et al., and Shirahata et al., applied alone or in combination, fail to teach or suggest the unique combination and arrangement of method steps and features recited in claims 1 and 11 of the present application.

In view of the foregoing remarks, Applicants respectfully submit that claims 1 and 11 are allowable. Claims 2, 5, 6, 8, 10, 12-16, 18 and 20 depend upon claims 1 and 11, and are therefore allowable for at least the reasons that claims 1 and 11 are allowable.

In view of the foregoing amendments and remarks, Applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

Serial No. 09/523,350
September 15, 2003
Reply to the Office Action dated June 16, 2003
Page 12 of 12

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

Date: September 15, 2003


Attorneys for Applicants

Joseph R. Keating
Registration No. 37,368

Christopher A. Bennett
Registration No. 46,710

KEATING & BENNETT LLP
10400 Eaton Place, Suite 312
Fairfax, VA 22030
Telephone: (703) 385-5200
Facsimile: (703) 385-5080

RECEIVED
CENTRAL FAX CENTER

SEP 15 2003

OFFICIAL